

REMARKS

Claims 1-35 are present in this application. Claim 35 has been withdrawn from consideration in the present examination for being directed to a non-elected invention so that claims 1-34 were examined in the present Office Action. Clarifying amendments have been made to claims 1, 2, 18, 27, 28 and 33. Reconsideration and allowance for all claims 1-35 of the present application as amended are earnestly solicited in view of the following remarks.

Restriction has been required in the present application between a group I invention directed to a sealing device including at least claims 1-34 and a group II invention directed to an ion beam measuring device including at least claim 35. A provisional election with traverse of the group II invention including at least claims 1-34 was made in a telephone conversation. It is respectfully requested that the present restriction be reconsidered and withdrawn as examination of the group II invention including claim 35 would not present an undue burden.

One or more of claims 1-34 (no claims were referenced in the rejection) stands rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 3,666,276 to Hubler. This rejection is respectfully traversed.

Independent claim 1 will be referenced as the present rejection appears to be directed toward this claim, although no specific reference is made to any claim. Claim 1 recites a sealing device for providing a seal about a shaft that extends between first and second pressure differential zones and in particular to a device where the shaft extends into a vacuum process chamber. The sealing device comprises a shaft seal and a seal mount for maintaining a sealing engagement such that the shaft seal moves with the shaft in a large range of motion when vibration, misalignment and other conditions cause the shaft to move in unintended directions relative to the port covered by the seal. In vacuum environments, the claimed sealing device is desired and necessary for maintaining the vacuum seal by preventing air contamination in the vacuum environment for extended periods of time. The claimed sealing device allows the shaft to be moved in two or more degrees of freedom for manipulating objects in the vacuum process chamber while minimizing or eliminating air flow into the vacuum process chamber at the port for the shaft into the chamber.

Hubler is relied on to disclose a sealing device for a rotary shaft which relates to a moderate-leakage sealing device. As shown in Fig. 2, the device includes straps 22, rings 12 and

13, a sleeve 6a, a socket 3a, a lining 5a, and a wall 2a. The wall 2a of the casing contains an innocuous neutral fluid that is allowed to be exhausted to the atmosphere surrounding the casing without any inconvenience as a result of the moderate or limited leakage which constitutes a characteristic feature of this device. However, the device of Hubler is not suitable for the vacuum process chamber applications as claimed in the present application. The moderate or limited leakage realized in Hubler's device is insufficient for maintaining a vacuum seal for a process chamber and would therefore allow air to contaminate the vacuum environment. Specifically, Hubler does not disclose a sealing device that allows relatively large ranges of motion for the shaft while minimizing and eliminating air contamination of the vacuum process chamber as claimed in the present application. Accordingly, it is respectfully submitted that Hubler does not anticipate claims 1-34 of the present application and it is respectfully requested that this rejection be reconsidered and withdrawn.

For all of the above stated reasons, it is respectfully submitted that all of the outstanding rejections have been overcome. Therefore, it is requested that claims 1-34, in addition to withdrawn claim 35 of the present application, be passed to issue for at least the above stated reasons.

If any issues remain unresolved, the Examiner is requested to telephone the undersigned attorney.

Please charge any additional fees or credit any overpayments to deposit account No. 50-0896.

Respectfully submitted,  
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